

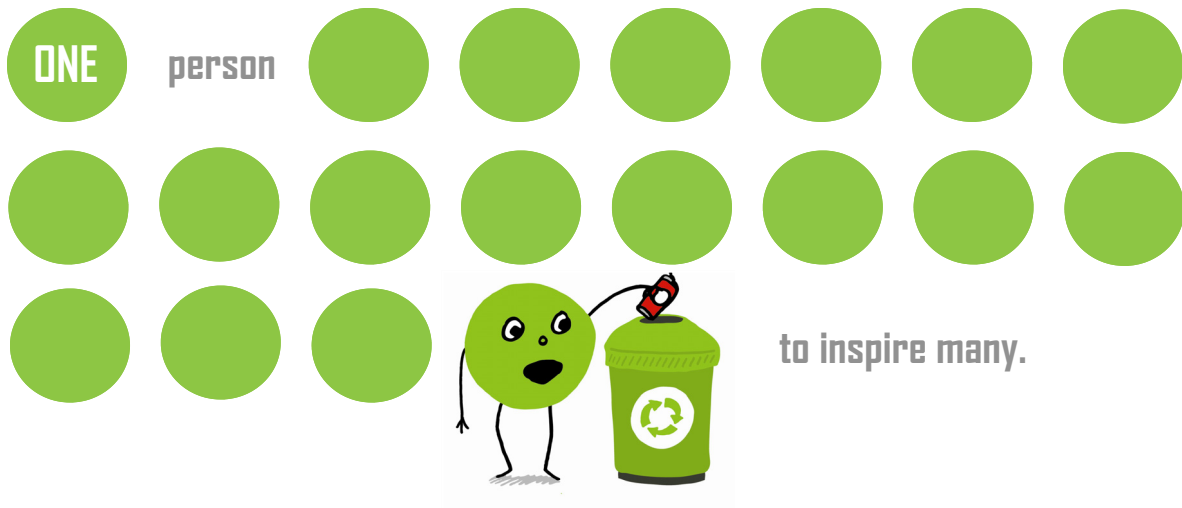


GREEN SPOT

Michael B. Coleman, Mayor

Classroom Resources

2012



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The following classroom resources available through partner organizations are recommended for use in conjunction with the GreenSpot Kids program.



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a. Presentations & field trips

Many organizations throughout central Ohio with environmental expertise are available to come to your classroom to provide educational presentations or have your class tour their facility as part of a field trip. A sampling of these organizations is listed below:

City of Columbus, Department of Public Utilities, Waste Water Treatment Plant: Teach students about what happens to water after it flows down the drain at the Jackson Pike Waste Water Treatment Plant. Call 645-3138 x 1200 or 645-3248 x 2219.

City of Columbus, Department of Recreation and Parks, Outdoor Education Center: Nature trails, caves and the Scioto River form the backdrop for your field trip. Staff lead your choice of eight separate programs on topics such as animals, trees, fossils, water quality and more. Fees apply. Call 645-3380 or visit <http://parks.columbus.gov>.

City of Columbus, Keep Columbus Beautiful: Choose from a variety of in-class presentations and activities focusing on community pride, litter, recycling and more. Visit www.keepcolumbusbeautiful.org or call 645-2421 for more information

Columbus Zoo and Aquarium: Offering in-class, virtual and field trip options with an emphasis on animal wildlife. Fees apply, but limited scholarships are available. Visit www.ColumbusZoo.org to view options.

COSI: Visit COSI downtown to enjoy exhibits that teach concepts related to all aspects of sustainability including waste and recycling at Trashformations, energy at the Innovation Showcase, water at Lily Pad and more! COSI on Wheels and outreach programming is available as well. Fees apply. Visit www.cosi.org or call 228-2674.

Franklin Park Conservatory & Botanical Gardens: Programs inspired by horticulture with topic areas including nature, art, the environment and food. On-site field trips and school outreach programs are offered. Fees apply. Call 645-5892 or visit www.FPConservatory.org.

Franklin Soil and Water Conservation District: In-class programming is available on the topics of our soil and water natural resources, conservation and human impact on the environment. Additionally, Franklin Soil and Water offers educator trainings and activity kits for loan. Visit www.franklinswcd.org for more information on the resources available.

Grange Insurance Audubon Center: Choose from a variety of half-day or full-day field trips led educators focusing on conservation as well as environmental and life science topics. Fees apply. Call 545-5486 or visit <http://grangeinsuranceauduboncenter.org>

Metro Parks: Field trips and in-class presentations are available free on a variety of topics including animals, plants, earth science, history and more. Visit www.MetroParks.net or call the Metro Parks Information line at 891-0700.

Mid-Ohio Regional Planning Commission: Learn about air pollution forecasting, how pollution is formed and the simple ways you can protect the air you breathe. Visit www.morpc.org or call 228-2663.

Ohio Wildlife Center: Schedule animal ambassadors to visit your school with the Wildlife Encounters program. Call 793-WILD or visit www.OhioWildlifeCenter.org

Rumpke: Take a virtual tour of the facility where recycling is sorted at www.RumpkeCleanAndGreen.com.

Solid Waste Authority of Central Ohio: Take a field trip to see where all trash in Franklin County winds up if it isn't recycled— the landfill. Bus reimbursement available. Visit www.swaco.org or call 871-6740.

b. Lesson plans

Air Now: Air Now was developed by the U.S. EPA to provide easy access to national air quality information. The website offers a variety of free teacher resources, including a toolkit with easy-to-use and engaging lesson plans and activities to teach students about the connections between air quality, health, weather, and other related science topics, as well as actions students can take to protect their health and reduce air pollution. Access the information online at www.AirNow.gov.

National Energy Education Development Project (NEED): NEED offers materials on energy use, energy efficiency, and new energy technologies and makes a ongoing effort to keep curriculum materials correlated to state standards and to the National Science Education Standards. Visit www.need.org for more information.

Ohio Energy Project: Refer to the Ohio Energy Project website for upcoming professional development opportunities for primary teachers at www.ohioenergy.org on the topic of global climate change.

Project WET: The development of a water ethic can begin at an early age. Children benefit from parents, educators and mentors who recognize not only the scientific but also the social and cultural aspects of water. The core of the program is the Project WET Curriculum and Activity Guide for kindergarten through twelfth grades. A collection of hands-on, easy to use and fun activities incorporate a variety of formats, such as large and small group learning, whole-body activities, laboratory investigations, discussion of local and global topics and involvement in community service projects. Supplementary resources are available which complement and enrich many of the activities. In order to obtain a Curriculum and Activity Guide teachers must attend an Educator Workshop. Contact the Ohio Department of Natural Resources for more information at 265-6610.

Project WILD: Project WILD is a supplementary education program emphasizing awareness, appreciation, and understanding of wildlife and natural resources. Attractive and easy to use, Project WILD is an ideal way to supplement your curriculum and fire the imagination of your students.

Project WILD teaches young people how to think about wildlife, not what to think. Students in Pre-K through twelfth grade learn basic concepts about wild animals, their needs and importance, and their relationships to people and the environment. The hands-on, diverse activities help develop problem-solving and decision making skills in determining responsible human actions. In order to obtain a Curriculum and Activity Guide teachers must attend an Educator Workshop. Contact the Ohio Department of Natural Resources by phone 1-800-WILDLIFE, by email outdoor.education@dnr.state.oh.us or find more information online at www.OhioProjectWild.com.

Project Learning Tree: Project Learning Tree is a comprehensive environmental education program that helps educators with balanced non-biased learning experiences for PreK through 12th grades that encompass the total environment - land, air, water, plants and animals (including humans). In order to obtain Project Learning Tree materials teachers must attend an Educator Workshop. Contact the Ohio Department of Natural Resources at 265-6657.

Windows on Waste: Windows on Waste is an interdisciplinary, environmental studies resource for elementary teachers and other environmental educators. It endeavors to meet the needs of competency-based education and constructivist approaches to teaching and learning. The lessons are grounded in general environmental studies concepts as applied to solid waste management issues, with particular emphasis upon recycling and litter prevention. The lessons also address many important educational concerns in Ohio.

Windows on Waste is made available to educators in Ohio through in-service or partnership programs sponsored by the Ohio Department of Natural Resources, Division of Recycling and Litter Prevention and its local community affiliates. Call 265-6333 for more information.

c. Grants

AEP Teacher Vision Grants: Teacher vision grants offer amounts up to \$500 for projects that have an academic focus and a goal to improve student achievement. AEP has a special interest in science, mathematics, technology, electrical safety, the balanced study of energy and the environment, and energy efficiency. Learn more online at www.AEP.com/go/teachergrants.

Green Shanny Foundation: Supporting environmental projects with grants up to \$1,500 in each of three categories: 1) Projects that educate today's youth on the importance of environmental issues and/or develop their potential as environmental leaders. 2) Projects that initiate action to work toward a more sustainable future, green energy or alternative transportation. 3) Projects that advocate on behalf of the environment, green energy or alternative transportation and/or attempt to influence public policy regarding these issues. More information is available at GreenShannyFoundation.org.

GreenWorks!: Grants up to \$1000 are available through this program of Project Learning Tree for schools and affiliates. GreenWorks! blends service activities with the academic curriculum and addresses real community needs as students "learn by doing." GreenWorks! action projects make a difference in young people's sense of responsibility toward their communities, and in their understanding of their relationship to the environment. Some examples of past grant projects include habitat restoration, watershed improvement, outdoor classrooms, and energy conservation. Visit www.plt.org for more information.

Ohio Department of Natural Resources– Wild School Sites: The Division of Wildlife offers WILD School Sites grants to local schools, government agencies, non-profit organizations and other school-oriented facilities to start an outdoor classroom. Forty grants of \$500 each are available every year. The grants are designed to provide funding for materials, equipment and activities that are otherwise unaffordable to the school or organization. These grants are not intended to be used as an ongoing source of funding for outdoor classroom projects. They are designed to be start-up grants for new sites or expansions of current sites. Grant applications are accepted January 1 through May 31 each calendar year, or until funding is exhausted. Visit www.WildOhio.com for more information.

Ohio Environmental Education Fund: Created by the General Assembly in 1990 to enhance Ohio citizens' awareness and understanding of environmental issues, OEEF is administered by the Ohio EPA and provides approximately \$1 million annually in grants to support environmental education efforts within the state of Ohio. General grants are available for \$5,000-\$50,000 and mini-grants for projects costing between \$500 and \$5000. There are two grant cycles annually, with application deadlines on January 15 and July 15. Visit www.epa.ohio.gov/oeef for more information.

Ohio EPA Clean Diesel School Bus Retrofit Grant: This program offers grants up to \$300,000 to retrofit diesel school buses with pollution control equipment and idle reduction equipment, to reduce student and driver exposure to the harmful pollutants in diesel exhaust and to conserve fuel. Application deadlines are every March 1 and September 1. Public school districts and county developmental disability programs in Ohio are eligible to apply. More information is available at www.epa.ohio.gov/oeef/schoolbus.aspx.

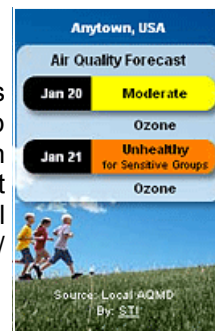
Solid Waste Authority of Central Ohio: Local governments, school districts, non-profits, and charities can apply for SWACO's grant program annually in the spring. Grants are designed to assist projects that further SWACO's mission of reducing waste, increasing recycling, and growing reuse efforts. A 25% cash or in-kind match is required. Visit www.swaco.org for more information.

Safe Routes to School: \$1000 mini-grants may fund activities ranging from the nuts and bolts that help start or sustain a program to new ideas that explore the range of benefits of safe walking and bicycling. The National Center invites student and adult leaders to consider their school's needs and interests and to propose solutions that are also part of a broader safe walking/bicycling to school effort. Visit www.saferoutesinfo.org.



d. Supplies & services

Air Quality Alerts: Every day of the year, the Mid-Ohio Regional Planning Commission is forecasting air quality (ozone and particle pollution) in central Ohio. These alerts help inform school decisions regarding outdoor activities on days when pollution levels reach an unhealthy level. A free tool, Air Update, allows your school to embed the air quality forecast onto the school's website. Schools can register administrative personnel to receive email notifications when an Air Quality Alert is issued. Learn more online at <http://airquality.morpc.org>.



Community gardening: Growing to Green at Franklin Park Conservatory provides design assistance and program support to schools interested in creating a school yard-learning garden. Call 645-5892 or visit www.FPConservatory.org.

Environmental Education Council of Ohio (EECO): EECO provides educator certification in environmental education, an annual educator conference and a guide to best practices. Visit www.eeco-online.org.

Keep Columbus Beautiful: Plan a litter clean up or spring planting day service project for your school. Keep Columbus Beautiful can help by providing gloves, trash bags, shovels and a variety of other supplies to help you get started. Visit www.keepcolumbusbeautiful.org or call 645-2421 for more information.

Newsletters: Newsletters from the following organizations provide the most up to date information on a variety of sustainability related topics:

Get Green Columbus from the Mayor's Office of Environmental Stewardship. Visit www.getgreencolumbus.org to subscribe.

SWIFT from Franklin Soil and Water Conservation District. Visit www.franklinswcd.org to subscribe.

Teacher e-news from COSI. Visit www.cosi.org to subscribe.

Educator's Newsletter from the Columbus Zoo & Aquarium. Visit www.colszoo.org to subscribe.

Wild Ohio from the Ohio Department of Natural Resources. Visit <http://www.ohiodnr.com/wildlife>

Report littering: Litter as small as a cigarette butt can be reported online or over the phone through the Environmental Crimes Task Force of Central Ohio. Simply enter the incident online at www.itsacrime.org noting details such as the time, location, license plate number and vehicle model.

Storm Drain Marker Program: Your class can help protect water quality by applying vinyl markers on curbs near storm drain inlets. Storm drain markers remind people that dumping into the storm drain contributes to pollution and endangers wildlife. The project is part of the "We All Live Downstream" pollution prevention public education program coordinated by the City of Columbus, Department of Public Utilities. Labels are applied easily with glue and kits are available at no charge by calling 645-2926.



Walking School Bus/ Bicycle Trains: The federal Safe Routes to Schools program simultaneously promotes health, safety and alternative modes of transportation that better for the environment like walking and biking. Together with parents, your school can organize a walking school bus or bicycle train to realize the multiple benefits of alternative transportation. Visit www.saferoutesinfo.org for a guide to developing a program at your school. Additionally, contact Columbus Public Health to see if your school qualifies for assistance in starting a Safe Routes to School program in partnership with the Ohio Department of Transportation.

Waste Not Center: Donated materials that otherwise would be discarded find new life in the classroom. Teachers pay a small annual membership fee in order to obtain an unlimited quantity of materials. The Center accomplishes the dual objectives of enabling teachers to obtain materials for their work that would otherwise be unaffordable and reducing the burden on local solid waste disposal systems. www.wastenotcenter.org

e. Further reading (for kids)

- Cherry, Lynne. (1990). The Great Kapok Tree: A Tale of the Amazon Rain Forest. New York: Harcourt. About to cut trees in the rainforest, a man dreams of the ways each animal depends on the Kapok Tree.
- Child, Lauren. (2002). What Planet Are You from Clarice Bean?. New York: Orchard Books. A fun story from the Clarice Bean series where Clarice learns about helping the environment.
- Geisel, Theodor Seuss, and Dr. Seuss. (1971). The Lorax. New York: Random House Books for Young Readers. How could we have a list of books on sustainability without the most famous environmental picture book! The Lorax is a timeless classic about the horrible effects of reckless development.
- Glaser, Linda. (2000). Our Big Home: An Earth Poem. Brookfield, CT: Millbrook Press. Pictures filled with a joyful optimism accompany a poem that touches on several of the elements of the earth we all share- wind, sun, water, soil, and more.
- Jackson, Ellen. (2005). Earth Mother. New York: Walker Books for Young Readers. Soft illustrations follow the Earth Mother's gentle walk as she tends her earth, listening to the problems of her creatures.
- Jenkins, Steve. (2006). Almost Gone: The World's Rarest Animals. New York: HarperTrophy. A set of beautiful paper collages surveys a variety of animals ranging from endangered, to extinct, to replenishing their population.
- Lalor, Pauline, and Sally Morgan. (2000). World Food. UK: Franklin Watts Ltd. A quick trip into the various environmental aspects of something we can't live without- food! Includes lots of pictures and an attractive, modern layout.
- London, Jonathan. (2005). Giving Thanks. Cambridge: Candlewick. Caring for the environment can begin with the simple recognition of all that nature provides.
- Lorbiecki, Marybeth. (2007). Paul Bunyan's Sweetheart. Missouri: Sleeping Bear Press. In this original tall-tale, Paul Bunyan tries to woo the sweet Lucetta by providing conventional solutions to her challenges only to find that all he needs to do is take better care of the earth.
- McDonald, Megan. (2004). Judy Moody Saves the World!. Cambridge: Candlewick. A silly story in the Judy Moody series follows third grader Judy as she applies what her class learns about the environment to her family's habits.
- Morichon, David. (1998). Pollution? No Problem. Brookfield, CT: Millbrook Press. Albert tries to find ways to deal with the pollution his invention is producing in this simple story.
- Nelson, Sara Elizabeth. (2006). Let's Save Water! (Pebble Books). New York: Pebble Books. What could be better than learning to read while gaining practical knowledge about caring for the earth? While this easy reader contains some longer words, they're good ones to know- polluting, wasting, and danger.
- Rose, Deborah Lee. (2001). The People Who Hugged the Trees: An Environmental Folk Tale. Colorado: Roberts Rinehart Pub. Today tree hugging usually refers to cheesy and useless environmental pursuits. However, 300 years several hundred villagers risked their lives in India to protect the trees they needed to survive. You'll never think of tree hugging the same way again!
- Schimmel, Schim. (2001). The Family of Earth. Chanhassen, MN: North Word Press. Poetic text shares the poignant message that animals and earth must share earth's resources accompanied by adorable animals set amongst images of the earth in space.
- Sheather, Allan, and Kim Michelle Toft. (1998). One Less Fish. Watertown, MA: Charlesbridge. Written in rhyme, younger children count backwards from twelve to zero while older children explore the reasons behind why the brightly depicted fish are disappearing in more detailed text.
- Taback, Simms. (1998). Joseph Had a Little Overcoat. New York: Viking. In an engaging story, worthy of the Caldecott Medal it received, Joseph finds ways to reuse his overcoat as it becomes more and more worn.

Compiled by Erin Reilly-Sanders

e. Further reading (for kids) continued...

- Cole, Henry. (2007). On Meadowview Street. New York: harper Collins. Caroline moves into a new neighborhood and with help from her parents turns their backyard into a meadow on Meadowview Street.
- Fleming, Denise. (1996). Where Once There was a Wood. New York: Holt. Examines the many forms of wildlife that can be displaced if their environment is destroyed by development.
- Harper, Joel. (2006). All the Way to the Ocean. California, Freedom Three Publishing. An inspirational story about 2 best friends and their discovery of the cause and effect relationship between our cities' trash filled storm drains and the world's oceans, lakes and rivers.
- Locker, Thomas. (1993). Where the River Begins. Penguin Group. Two young boys and their grandfather go on a camping trip to find the source of the river that flows by their home.
- Mayer, Mercer. (1993). Just a Gum Wrapper. Connecticut: Reader's Digest Kids. In this Little Critters book the critters learn that we need to take care of the earth because it takes care of us. They give many examples of how they try to do their part.

Compiled by Linda Pettit

f. Events

America Recycles Day: Occurring annually on November 15th America Recycles Day aims to educate and motivate people to recycle. Get involved online at www.AmericaRecyclesDay.org or call Keep Columbus Beautiful at 645-2421.

Car Free Day: Typically celebrated locally in September, Car Free Day challenges people to travel without their car for a day to benefit the environment. Temporary public parks are created out of parking spaces to demonstrate what could be done with our space if there were fewer cars on the road. Get your own Car Free Spot on the map or find out more about getting involved by visiting www.carfreedaycolumbus.org a service of the Mid-Ohio Regional Planning Commission.



Central Ohio Children's Water Festival: In celebration of National Drinking Water Week, the Children's Water Festival is a one-day field trip opportunity for 5th grade classes from across central Ohio to learn all about our water resources each May.

Information is mailed to all central Ohio schools each September. Contact 645-5970 with question on how your class can participate.

Earth Day: Celebrated internationally on April 22 every year. Locally, Green Columbus conducts one of the largest celebrations in the world. Their event includes a myriad of volunteer opportunities and a celebration, which typically occurs on or near April 22. Visit www.EarthDayColumbus.org or www.GreenCbus.org for more information.

Monthly Science Days: Free with COSI admission, Science Days focus on a specific topic and include guest presenters from area organizations, special activities, and demonstrations. Check the calendar of events at www.cosi.org or call 228-2674 for details.

Walk to School Month: October is internationally known as Walk to School Month to promote safer and improved streets, healthier habits, and environmental conservation by reducing traffic congestion and pollution. The Mid-Ohio Regional Planning Commission (MORPC) assists in the coordination of Walk to School efforts in central Ohio including bimonthly education forums with regular updates on ODOT funding programs and best practices. To get involved visit www.morpc.org/walktoschool or call 228-2663.

